

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16 (Cancelled)

17. (currently amended) A solid substrate surface having bonded chemically on said solid substrate surface:

- (i) a defined layer of polymers and/or oligomers or
 - (ii) a defined layer system of polymers and/or oligomers
- said layer or layer system having controlled chain length and/or polydispersity ~~on solid substrate surfaces.~~

18. (previously presented) A solid substrate surface as in claim 17, wherein said defined layer or defined layer system is produced by ATRP-polymerization.

19. (currently amended) A solid substrate surface having chemically bonded thereto a compound of general formula (1) as initiator for an ATRP-polymerization

A-L-I (1)

wherein

A is an anchor group bonding the compound to the solid substrate surface

I is a group for initiating a reaction which proceeds according to an ATRP-mechanism, and

L is a link between the groups A and I [[,]]
~~as initiator for an ATRP-mechanism.~~

20. (currently amended) Solid substrate surface with a polymer and/or oligomer layer, produced by a process comprising the following steps:

- a) providing and optionally preparing a solid substrate surface,
- b) chemically bonding to the solid substrate surface an initiator which includes a group I for initiation of a reaction which proceeds according to an ATRP-mechanism,
- c) subsequent to step b), carrying out on the solid substrate surface a first ATRP-polymerization initiated by the initiator, with radically polymerizable (a) monomers, (b) macromonomers, or (c) mixtures thereof, so that a first layer of polymers and/or oligomers is formed on the solid substrate surface.